Response of December 5, 2005

Application 10/827,171 Inventors: Green et al.

Date: 12/5/2005 Time: 10:26:20 PM

REMARKS

1. Response to Restriction Requirement

The Examiner has identified claims 1-15 as defining an independent and distinct invention (Group I) from subject matter defined by the other claims (Groups II to IV). Applicants elect for examination claims 1-15 and accordingly withdraw from current prosecution claims 16-30, which are canceled without prejudice. The listing of claims submitted herewith reflects Applicants' present election of Group I.

Applicants present a new claim 31. This claim is directed to the embodiment wherein the altering step is during inter-frame time, that is, during the specific period during image acquisition between the end of exposing one frame and the start of exposing the next frame. Support for this claim is found in various teachings of the disclosure, including at page 10, lines 13-18, at page 23, lines 22-25 and in Figure 9, especially in the loop defined by nodes 912 to 926.

2. Drawings

The Examiner objects to Figures 1-4, 6-8 and 11, stating that "all diagrammatic blocks and features" in these figures "are required to be distinctly labelled to indicate contents or function with legends . . . since they are necessary for understanding of the drawing." Applicants respectfully request reconsideration and further guidance from the Examiner on this point.

Applicants acknowledge that the Examiner has the power to require that the drawings be amended to include legends. The Manual of Patent Examining Procedure (Aug. 2005 revision) provides, with regard to drawings, at sec. 608.02(o):

"Legends. Suitable descriptive legends may be used subject to approval by the Office, or may be required by the examiner where necessary for understanding of the drawing."

However, the M.P.E.P. adds: "They should contain as few words as possible." Similarly, regulation 11.11 under the Patent Cooperation Treaty provides: "Words in Drawings: (a) The drawings shall not contain text matter, except a single word or words, when absolutely indispensable, such as "water," "steam," "open," "closed," "section on AB," and, in the case of electric circuits and block schematic or flow sheet diagrams, a few short catchwords indispensable for understanding. (b) Any words used shall be so placed that, if translated, they may be pasted over without interfering with any lines of the drawings."

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Applicants point out that the present application discloses and claims subject matter that was also disclosed in international patent application PCT/US00/22192, published as WO 01/13640 A1. The International Searching Authority in that case didn't say that there were any words that would be needed on the drawings to be indispensable for understanding. Nor did the Examiner of the parent case, now U.S. patent 6,724,419.

Applicants invite the Examiner to take a second look at the drawings. With that in mind, the Examiner will probably characterize Figures 1-4, 6A, 6B, 6C, 6D, 7A, 7B, 7C, 7D, 8A, 8B, 8C, 8D and 11 differently than he did when first encountering them. In particular, of the aforementioned list, Figures 6A through 11 are screen shots rather than block diagrams. They illustrate what a user would see on a monitor as the software goes through various functions. Taken with the description in the specification, they are readily understandable, and Applicants submit that adding legends would detract from their clarity by adding extraneous material.

Figures 1-4 are not block diagrams. Figure 4 is really just a perspective view of a microscope, with the parts being self-evident to whomever looks at it. Figures 2 and 3 are exploded and somewhat diagrammatic perspective representations of various elements of a microscope system of the present invention. Again, the meaning of these figures is evident to the reader, especially when read together with the corresponding portion of the specification. The important point about Fig. 2 is that each of the connectors leads to a different part of the system, and legends saying so do already appear in Fig. 2.

In Figure 1, various elements which happen to be rectangular in cross section (namely elements 112, 114, 130, 126, 108 and 106) are not "blocks" as in a block diagram, but rather are shown in the context of the paths of light through the microscope and would be apparent to the intended reader, one of ordinary skill in the art. Applicants acknowledge that the computer system 211 in this figure is diagrammatically represented, and element 213 does carry a legend (namely "CPU"). The rest of the blocks are identified with reference numerals that are referred to in the specification. If the Examiner requires, Fig. 1 could be re-drawn so that legends be added to other elements of the computer 211. However Applicants submit that it would needlessly expand the drawing and add cost, and distort the balance between the parts of the drawing as prepared by the Applicants.

Applicants respectfully point out that these drawings are substantially identical to the drawings appearing in the issued parent patent to this case, namely U.S. patent 6,724,419. Since the drawings were satisfactory under the first

Examiner's view of the M.P.E.P. to illustrate the invention in the '419 patent, Applicants respectfully ask that the present Examiner reconsider and withdraw the requirement to modify those drawings in the present case.

3. Claim Objection

The Examiner has stated that the step recited thirdly in Claim 1 should read

altering, during image acquisition, at least one image acquisition parameter which applies to a next image

rather than what it says now, namely

altering, during image acquisition, at least one image acquisition parameter which applies to the next image

Applicants submit that the language proposed by the Examiner would introduce an ambiguity into the claim recitation that is clear and definite in its present form. Firstly, note that the preamble of the claim recites a method of acquiring "images", that is, a plurality rather than a single "image." If Applicants were to adopt the Examiner's request, "a next image" might be construed to refer to any subsequent image, whereas Applicants' disclosure teaches that the altered parameter apply to the immediately succeeding image, namely "the next image" of the plurality of images, as currently recited in Claim 1.

The Action asserts but does not explain why the present form of the recitation would be an "informality." It fails to cite any statute or regulation which Claim 1 would violate.

Applicants point out that the "image" referred to as "the next image" is not treated as an "element" of Claim 1. Applicants' attorney acknowledges that in general, U.S. claim drafting practice mandates that there should be antecedent basis in a claim for a recitation of an element that is preceded by a definite article. That definite article could be the word the or the word said, short for "the aforesaid". However, Applicants submit that this principle just doesn't apply to the present recitation of the next image and so respectfully traverse the objection.

4. Rejection under 35 U.S.C. 102(b)

All of the pending claims are rejected as anticipated by U.S. Patent 5,233,197 of Bowman et al. (hereinafter "Bowman"). Applicants respectfully traverse the rejection.

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Bowman fails to teach each of the elements of Claim 1. Specifically, Bowman describes a system in which images are acquired **faster** than the maximum image acquisition rate of the camera. As amended, Claim 1 recites that the images be acquired at a rate less than and substantially close to the maximum image acquisition rate of said camera.

Bowman describes in detail a "strip image acquisition" system (col. 3, ln. 9). The strip image acquisition system serially transfers image fields onto sub-image areas of the CCD. Once the sub-image areas are exposed, the camera is read out. Bowman states that: "Once the CCD is full the sub-images are serially read out 210 from the CCD to the camera controller" (col. 7, ln. 68 – col. 8, ln. 2).

Claims 2-15 and 31 are dependent on Claim 1 and are thus patentable over Bowman as well. Moreover, the dependent claims recite additional unanticipated and unobvious elements that would of course need to be considered if Applicants' position on the patentability of Claim 1 were to be rejected.

CONCLUSION

For the foregoing reasons, Applicants submit that claims 1-15 and 31 are allowable, and prompt Notice of Allowance is respectfully solicited. If the Examiner has any further questions or comments, kindly phone Applicants' attorney to resolve them.

Respectfully submitted:

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